

## ABSTRACT

A structure for eliminating the influence of an antenna line connected to the patch electrode on the antenna characteristics of a patch antenna built in an MMIC is disclosed. A through-hole is formed in the antenna ground plane which is provided under the patch electrode with an interlayer insulation film therebetween, the antenna line is provided in the side opposite to the patch electrode with respect to the antenna ground plane, and the patch electrode and antenna line are connected to each other with a conductor passing through the trough-hole.